This listing of claims replaces all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (previously presented) An enhanced nanocomposite comprising of:

   a powder having a surface modified nanoscale layer selected from the group consisting of metals, metal oxides, organometallics, semiconductors, alloys, carbon products, and combinations thereof, the powder having an average particle size of from about 1 nanometer to about 1 micron, a nanoscale layer having an average thickness of from about 1 nanometer to about 100 nanometers; and

   a conductive medium selected from the group of monomers, polymers, organometallics, and combinations thereof.

2. (previously presented) The conductive medium according to claim 1, wherein the medium is a nanocomposite having an average particle size of from about 1 nanometer to about 1 micron.

3. (previously presented) The conductive medium according to claim 2, wherein the medium is functionalized with a nanoscale layer having an average thickness of from about 1 nanometer to about 100 nanometers.

4. (currently amended) The nanocomposite according to claim 1, whereby the nanocomposite is assembled into a multiple layer nanocomposite ~~matrixes are made from composition comprised of nanocomposite according to claim 1~~.

5. (currently amended) The multiple layer nanocomposite ~~matrixes~~ according to claim 4, wherein the multiple layer nanocomposite is ~~matrixes are~~ subjected to a phonon or electron bias as induced by externally generated fields.

6. (previously presented) The externally generated fields according to claim 5, wherein field is selected from the group of ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.

7. (currently amended) The multiple layer nanocomposite ~~matrixes~~ according to claim 4, wherein the matrix is comprised of alternating layers of nanocomposite doped with conductive additives, and nanocomposite doped with semiconductor additives.

8. (previously presented) The alternating layers according to claim 7, wherein the layer thickness is less than 100 nanometers.

9. (previously presented) The alternating layers according to claim 7, wherein the layer thickness is less than 10 nanometers.

10. (previously presented) The functionalized powders according to claim 3 are functionalized for at least one purpose selected from the group promoting dispersion, enhancing corrosion resistance, reducing friction, enhancing chemical stability, enhancing molecular polarity, modifying hydrophobic or hydrophilic characteristics, enhancing solubility, providing stability against thermal and ultraviolet degradation, enhancing lubricity, improving mold release, varying color, incorporating nucleating agents, enhancing plasticity, or enhancing means to make emulsions.

11. (previously presented) The powder having a surface modified nanoscale layer according to claim 1 is functionalized for at least one purpose selected from the group promoting dispersion, enhancing corrosion resistance, reducing friction, enhancing chemical stability, enhancing molecular polarity, modifying hydrophobic or hydrophilic characteristics, enhancing solubility, providing stability against thermal and ultraviolet degradation, enhancing lubricity, improving mold release, varying color, incorporating nucleating agents, enhancing plasticity, or enhancing means to make emulsions.

12. (previously presented) The nanocomposite according to claim 1 is further comprised of surfactant wherein the interfacial tension of the powders is reduced.

13. (previously presented) The nanocomposite according to claim 1 is further comprised of quantum dots wherein the flow of electrons is further enhanced by reducing the mean path length between said powders according to claim 1.

14. (previously presented) The powders selected from group consisting of metals, metal oxides, alloys, and combinations thereof according to claim 1 is further subjected to microetching process wherein the surface topography is modified with nanoscale dendritic features.

15. (previously presented) The nanocomposite according to claim 1, wherein the carbon products, monomers, polymers, organometallics, metals, metal oxides, and semiconductors are chemically modified by non-thermal means.

16. (previously presented) The non-thermal means according to claim 15 is selected from the group of microwave and electron beam.

17. (previously presented) The non-thermal means according to claim 15 is subjected to a phonon or electron bias as induced by externally generated fields.

18. (previously presented) The externally generated fields according to claim 17, wherein the field is selected from ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.

19. (currently amended) Products are made from the multiple layer nanocomposite ~~matrixes~~ according to claim 4.

20. (previously presented) The products according to claim 19 are further subjected to a phonon or electron bias as induced by externally generated fields.

21. (previously presented) The externally generated fields according to claim 20, wherein field is selected from the group of ultrasonic, acoustic phonon, magnetic, electromagnetic, and electrical fields.

22. (previously presented) The externally generated fields according to claim 21 produces byproducts selected from the group of conductive polymers, nanotubes, nanohorns, and fullerenes.

23. (previously presented) The products according to claim 19 wherein said product is further selected from the group of energy conversion products selected from the group of thermionics, thermoelectric, photovoltaic, fuel cell, piezoelectrics,

photoelectrics, ballistic tunneling, thermal diodes; and photon, electron, and photon emitters.